SONY

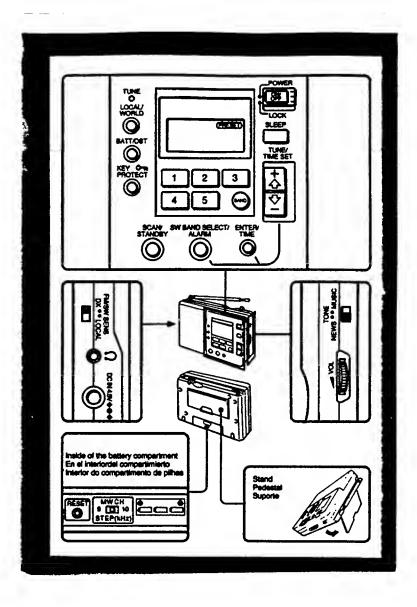
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FM Stereo/SW/MW PLL Synthesized Receiver

ICF-SW30

Operating Instructions
Manual de instrucciones
Manual de instruções

Sony Corporation © 1993 Printed in Japan



WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

You are cautioned that any changes of modifications not expressly approved in this manual could void your authority to operate this equipment.

INFORMATION—For the Customers in U.S.A. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does INFORMATION-For the Customers in U.S.A. particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV

Owner's Record

The model and serial numbers are located at the rear of the unit. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. ICF-SW30 Serial No. _

Before You Begin

Thank you for choosing the Sony world band receiver! The world band receiver will give you many hours of reliable service and listening

pleasure.
Before operating the world band receiver, please read these instructions thoroughly and retain them for future reference.

Features

- FM stereo/SW/MW portable receiver with
- worldwide band coverage
 Ouartz controlled PLL (Phase Locked Loop)
 synthesizer system using a microcomputer for
 easy pinpoint tuning
 Worldtime clock for international use
- Memory preset for up to 5 stations on each
- Scan tuning
 Alarm function to turn the radio on at the preset
- Sleep timer
- FM stereo reception through stereo earphones

Installing Batteries

To keep good time and preset stations, your receiver needs three R6 (size AA) batteries (not supplied). Before setting the time and preset stations on your receiver, open the lid at the rear of the unit, install the batteries with correct polarity and then close the lid. After installing the batteries, "0.00" flashes. To stop flashing, press ENTER/TIME

Knowing When To Replace the Batteries

While you are listening to the radio, check the battery condition by pressing BATT/DST. The unit displays one of four indications depending on the power remaining in the batteries.

used exhausted

- When the batteries become weak, the sound becomes weak or distorted. When the batteries are completely exhausted, the power is turned off and " o o o " in the display flashes. When the power is turned on with the indication flashing, the power will be turned off right away. When " o o o " starts flashing, replace all the hatteries with new ones." batteries with new ones.
- batteries with new ones.
 After the batteries are replaced, press ON/OFF to erase the tlashing indication.
 Replace the batteries within about one minute after removing the batteries. If you do not replace them within one minute, the preset stations may be erased, the clock setting may be cleared and "0:00" flashes in the display. For battery life, see "Specifications".
 When the batteries are removed for a long time, preset stations will be erased and the clock.
- preset stations will be erased and the clock setting will be cleared. In this case, store stations and set the clock again.

Using on Other Power Sources

The internal batteries are automatically disconnected when the AC power adaptor or the car battery cord is connected to the DC IN 4.5 V

House Current

Connect the Sony AC-E45M AC power adaptor (not supplied) to the DC IN 4.5 V jack, and plug it into a wall outlet.

Car Battery

For use on a 12 V car battery, connect the Sony DCC-E145L car battery cord (not supplied) to the DC IN 4.5 V jack.

- When the AC power adaptor is not used, be sure to unplug it from both the DC IN 4.5 V jack and the wall outlet.
- The batteries should be inserted for backup even when the unit is operated on AC power adaptor or car battery cord.

Note on the AC Power Adaptor

Use only the recommended car battery cord or AC power adaptor (not supplied).

Do not use any other car battery cord or AC power adaptor.

Polarity of the plug

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Troubleshooting

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Should any problem persist after you have made following checks, consult your nearest Sony dealer.

Sound is not heard at all.

- VOL is turned down completely.
 The stereo earphones are plugged in.
 Incorrect polarity of batteries.

Radio disconnects even it you press ON/OFF or sound fades away right away.

• Weak batteries.

Noise or unclear sound

- Weak batteries.
- Weak batteries.
 Tuning or antenna adjustment is not correct.
 Weak signal. → When using in a vehicle or in a building, listen near a window.
 FM/SW SENS is set to LOCAL. → Set to DX.

Stations cannot be stored.

• Pressing the preset button while pressing ENTER/TIME.

The preset station cannot be received during

- Preset station cannot be received duppreset tuning.
 VOL is turned down completely.
 Wrong band is selected.
 Storing wrong frequency. → Check the frequency in the display.

- No key input is acceptable.

 KEY O-n PROTECT has been pressed.

 Press KEY O-n PROTECT again and erase
- POWER/LOCK is set to LOCK.

Display is dim.

• The unit is being used in extremely high or low temperature, or in a place subject to excessive moisture.

Precautions

- Precautions

 Operate the unit only on the power sources specified in "Specifications".

 The nameplate indicating operating voltage, etc., is located on the rear of the unit.

 The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.

 Use the unit within a temperature range of 0 °C to 40 °C (32 °F to 104 °F). If it is used in temperatures outside this range, an irregular display may appear on the display window. If it is used in temperatures lower than this range, the display may change very slowly. These irregularities will disappear and there will be no damage to the unit when the unit is used in its recommended temperature range.

 Do not leave the unit near heat sources, such as radiators or airduct, or in a place subject to direct sunlight, excessive dust, moisture, rain, mechanical vibration, or shock.

 Should anything fall into the unit, unplug the unit, and have it checked by qualified personnel before operating it further.

 Since a strong magnet is used for the speaker, keep personal credit cards using magnetic coding or spring-wound watches away from the unit to prevent damage from the magnet.

 To clean the casing, use a soft cloth dampened with a mild detergent solution.

 In vehicles or in building, radio reception may be difficult or noisy. Try listening near a window.

 Battery Warning

Battery Warning
When the unit will be left unplugged for a long time, remove the battery to avoid undue battery discharge and damage to the unit from battery leakage.

If you have any questions or problems concerning your unit, please consult your nearest Sony dealer.

Specifications

Circuit system:
SW: Dual conversion superheterodyne
MW/FM: Single conversion superheterodyne
Frequency range:

Band	Meter band	Frequency	Channel step
MW		531-1710 kHz*1 530-1710 kHz*1 531-1602 kHz*2 530-1610 kHz*2	9 kHz 10 kHz 9 kHz 10 kHz
SW	75 m 60m 49m 41m 31m 25m 21m 19m 16m 13m	3700 – 4200 kHz* 1 3850 – 4200 kHz*2 4650 – 5150 kHz 5800 – 6300 kHz 6950 – 7450 kHz 9375 – 10000 kHz 11525 – 12150 kHz 13375 – 14000 kHz 14975 – 15600 kHz 17475 – 18100 kHz 21320 – 21950 kHz	1 kHz (Manual tuning) 5 kHz (Scan tuning)
FM		87.50-108.00 MHz* ³ 76.00-108.00 MHz* ⁴	0.05MHz

- *1 Countries except for Italy and Saudi Arabia
 *2 Italy and Saudi Arabia
 *3 Germany, Austria, Scandinavian countries,
 Italy and Saudi Arabia
 *4 Countries except for *3

Intermediate frequency:
FM: 10.7 MHz, MW: 450 kHz
Speaker: Approx. 6.6 cm (2 1/8 inches)
Power output: 240 mW (at 10 % harmonic

Power output: 240 mW (at 10 % harmonic distortion)

Output: Earphones jack (stereo minijack)

Power requirements: 4.5 V DC, three R6 (size AA) batteries

DC IN 4.5 V jack accepts:
Sony AC-E45M AC power adaptor (not supplied)
Sony DCC-E145L car battery cord (not supplied) for use with 12 V car battery

Battery life: Approx. 13 hours of listening for 4 hours a day at a normal volume using Sony batteries SUM-3(NS)

Dimensions: Approx. 169 × 111 × 35 mm (w/h/d) (Approx. 6 3/4 × 4 3/8 × 17/16 inches) not incl. projecting parts and controls

Mass: Approx. 448 g (15.8 oz) incl. batteries.

Accessories supplied: Short wave guide (1)

Design and specifications are subject to change without notice.

Optional Accessories: AC power adaptor AC-E45M AC-E45HG (North America only) Car battery cord DCC-E145L

This appliance conforms with EEC Directive 87/308 EEC regarding interference suppression.

Your dealer may not handle some of the above listed optional accessories. Please ask the dealer for detailed information about the optional accessories available in your country.

Setting the Clock

Set the time when the radio is turned off.

LOCAL time means the time in your area and WORLD time means the time in a certain place in the world. Refer to the map located at the rear of the unit. They can be switched between each other by pressing LOCAL/WORLD.

The clock operates in 24-hour system.

"0:00"= midnight "12:00"= noon

Setting LOCAL Time
When installing batteries for the first time, the display will flash "0:00" and indicate "LOCAL".

1. Set POWER/LOCK to POWER. Make sure that ON/OFF is set to OFF.



- 2. Press LOCAL/WORLD to make the display show "LOCAL"
- 3. While holding down ENTER/TIME, press either + or - under TUNE/TIME SET till the correct time appears in the display. When you release ENTER/ TIME, the clock begins to operate and ":" flashes.
- The current time displays even when POWER/LOCK is set to LOCK.
 To set the current time rapidly, keep pressing the + or button while holding down ENTER/TIME.

Setting WORLD Time

- 1. Set POWER/LOCK to POWER. Make sure that ON/OFF is set to OFF.
- 2. Press LOCAL/WORLD to make the display show "WORLD".
- 3. While holding down ENTER/TIME, press either + or - under TUNE/TIME SET till the correct time appears in the

WORLD time changes only in hours.

For Areas Where Daylight Saving Time Is Used

When setting the clock during this period, press BATT/DST after the step 1. " 兼 " appears in the display. When daylight saving time finishes, press BATT/DST. Current time indication changes automatically. If you have previously set the clock when it is not in the period of daylight saving time, press BATT/DST at the beginning of this period.

- Press BATT/DST only when the radio is turned
- off.

 You can set daylight saving time for LOCAL time and WORLD time respectively.

Operating the Radio

Manual Tuning

1. Set POWER/LOCK to POWER



- 2. Press ON/OFF to turn on the radio.
 3. Turn VOL (volume) a little to get sound.
- 4. Press BAND to select the band. Each push changes the display as follows. (The last frequency selected in each band appears.)

$$\rightarrow$$
 MW \rightarrow SW \rightarrow FM

- 5. For SW, while holding down SW BAND SELECT/ALARM , press either + or under TUNE/TIME SET to select the meter band.
- Tune in a station by pressing either + or under TUNE/TIME SET.
- 7. Adjust VOL.
- To turn off the radio, press ON/OFF.
 When you listen to the news, set TONE to NEWS. The human voice will be heard more clearly. When you listen to music, set it to MUSIC.
 To enjoy End.
- MUSIC.
 To enjoy FM stereo, connect stereo earphones (not supplied) to ① (earphones jack).
 To prevent accidental change of the receiving station, press KEY Om PROTECT. "Om " is displayed, indicating that all the functions of the buttons are locked. You can adjust TONE, VOL and FM/SW SENS even if "Om" is displayed. To release the key protection, press KEY Om PROTECT again.

Changing the MW Channel Step

Change the channel step when you use the radio where the frequency allocation system is based on the other MW channel step.

Area	MW channel step	
North and South American countries	10 kHz	
Other countries	9 kHz	

- 1. Set POWER/LOCK to LOCK.
- Remove the batteries from the unit.
- 2. Remove the batteries from the Samuel3. Change the position of the MW CH STEP selector in the battery compartment with a ball-point pen or other pointed object.
- 4. Install the batteries and set POWER/ LOCK to POWER.
- The MW channel step cannot be changed with step 3 only. Follow steps from 1 to 4 completely.

Note on RESET

There is the RESET button in the battery compartment. When this button is pressed, all the stored memories are cleared and the clock is

Scan Tuning

Use scan tuning to automatically scan the stations in the frequency range of a broadcast band.

- 1. Set POWER/LOCK to POWER.
- Press ON/OFF to turn on the radio.
 Press BAND to select the band. For SW, while holding down SW BAND SELECT/ALARM, press either + or — under TUNE/TIME SET to select the meter band.
- 4. Press SCAN/STANDBY. Scan tuning will begin within the frequency range of the table on "Specifications", and stop automatically for about two seconds when a station is received.
- 5. When your desired station is tuned in, press SCAN/STANDBY again.
 Until you press SCAN/STANDBY, scan tuning will continue.
- Tune the station more precisely with either + or under TUNE/TIME SET, if necessary.
- 7. Adjust VOL.
- Set FM/SW SENS to DX normally. When the scan stops so often, set it to LOCAL.

Preset Tuning

You can preset up to 5 stations in each band with the preset buttons 1 to 5

Presetting the Stations

- 1. Tune in the desired station by manual or scan tuning.
- While holding down ENTER/TIME. press the desired preset button. The preset number appears in the display and the station is preset.
- To change the preset station, install a new station's frequency in the number for which you wish to change stations. The previous frequency is canceled.

Tuning in a Preset Station

- 1. Set POWER/LOCK to POWER.
- 2. Press ON/OFF to turn on the radio.
- 3. Press BAND to select the desired band.
- Press the preset number button of the station.
- 5. Adjust VOL.

To improve reception
 FM: Extend the telescopic antenna and adjust the length, direction and angle for the best reception.
 SW: Pull out the telescopic antenna to its full

length and set it vertically.

MW: Rotate the unit horizontally for optimum reception. A ferrite bar antenna is built into the unit.

Note Reception of 4900 and 9800 kHz may be difficult because of internal spurious signals generated by the built-in oscillators.

Setting the Alarm

You can turn on the radio at the preset time. The buzzer beeps 10 seconds earlier than the preset time, and at the preset time, the radio turns on with the frequency tuned before you turn off the radio last time.

When the power stays on, the radio is turned off automatically after about 60 minutes.

Before you set the alarm, make sure that tune in a station, adjust the volume, and turn it off.

- 1. Set POWER/LOCK to POWER.
- 2. While holding down SW BAND SELECT/ALARM, press either + or under TUNE/TIME SET till the desired time appears in the display.
 While SW BAND SELECT/ALARM is held down, the display flashes "STANDBY".
- 3. Release SW BAND SELECT/ALARM. The alarm is set and the current time
- appears in the display.
 4. Press SCAN/STANDBY to set the alarm

"STANDBY" appears in the display.

- · The alarm turns itself off automatically after 60 minutes.
 When shutting off the alarm before that, press
- ON/OFF.
- ON/OFF.
 To cancel the alarm, press SCAN/STANDBY.
 "STANDBY" in the display disappears.
 To check the preset time, set POWER/LOCK to
 POWER and press SW BAND SELECT/
 ALARM.
 When POWER/LOCK is set to LOCK, the alarm
 does not work even it is set.

- When "O'CO" is flashing, the alarm function does
 When "0:00" is flashing, the alarm function does not work

Note
The alarm function will activate when the current time indication becomes identical with the alarm time which has been preset. Make sure that either "LOCAL" or "WORLD" appears in the display. If you want to activate the alarm function at your home (local) time, "LOCAL" should be displayed. If you want to activate it at a time in some place in the world, "WORLD" should be displayed. To change the indication, press LOCAL/WORLD.

Setting the Sleep Timer

Enjoy falling asleep to the radio using the sleep timer.

- 1. Set POWER/LOCK to POWER.
- 2. Press SLEEP.
 - "SLEEP" appears in the display and the radio turns on. It will go off after 60 minutes.
- 3. Tune in the desired station, and adjust VOL.
- To turn off the radio before the preset time, press ON/OFF.
 To prolong the listening time, press SLEEP again. The radio will be turned off 60 minutes later.